

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

Claims 1–19 (Cancelled).

1 Claim 20 (Currently Amended). A bus power-supply device in a node for
2 connection to a serial bus, said bus power-supply device structured to
3 supply power from a power-supply voltage of a node of a proceeding stage
4 to a node of a next stage through the serial bus connected to said node by a
5 physical layer and a plurality of connectors conductive to each other of the
6 node, ~~wherein~~ comprising:
7 a power-supply circuit which converts said ~~when a power-supply~~
8 voltage into ~~of said node of the proceeding stage is not supplied, a DC~~
9 voltage for said ~~is supplied from said node of the proceeding stage through~~
10 ~~said serial bus to said physical layer, and when said power-supply voltage~~
11 ~~is supplied, a DC voltage is supplied from said power-supply voltage to~~
12 ~~said physical layer by cutting off a path for supplying a DC voltage~~
13 ~~through said serial bus to said physical layer, communication being~~
14 ~~maintained between said node and proceeding and next stages through the~~
15 ~~serial bus whether a power-supply voltage is supplied or not~~ and outputs
16 said DC voltage;
17 a converter which converts a DC voltage output from said power-
18 supply circuit into a DC voltage for said physical layer;
19 a voltage detection unit which detects said power-supply voltage
20 being supplied or not being supplied to said power-supply circuit;
21 a first means connected between said power-supply circuit and said
22 converter for supplying a DC voltage outputted from said power-supply
23 circuit to the serial bus, and for preventing application to said power-
24 supply circuit of a DC voltage from the serial bus;
25 a second means connected between said converter and the serial
26 bus for supplying a DC voltage outputted from said power-supply circuit to
27 the serial bus, and for preventing application to said converter and said

28 power-supply circuit of a DC voltage from said serial bus; and
29 a switch which is connected in parallel with said second means and
30 controlled by an output signal outputted from said voltage detection unit;
31 wherein when an output voltage of said power-supply circuit is
32 detected, said switch is turned off, and when an output voltage of said
33 power-supply circuit is not detected, said switch is turned on.

1 Claim 21 (Canceled)

1 Claim 22 (Previously Presented). The bus power-supply as set forth in
2 claim 20, wherein said serial bus is an IEEE-1394-1995 Standard serial
3 bus.

1 Claim 23 (Currently amended). The bus power-supply device as set forth
2 in claim 20 ~~21~~, comprising:
3 a first path for supplying power from said power-supply voltage to
4 said physical layer; and
5 a second path for supplying power coming through said serial bus
6 to said physical layer, wherein
7 when power is supplied from said power-supply voltage, said
8 selector cuts off said second path by ON and OFF.

1 Claim 24 (Previously Presented). The bus power-supply device as set forth
2 in claim 21, wherein said selector is a semiconductor switch.

1 Claims 25-34. Canceled

1 Claim 35 (Currently Amended). A node having a bus power-supply device
2 structured to supply power from a power-supply voltage to a node of a next
3 stage through a serial bus connected to said node by a physical layer and a
4 plurality of connectors conductive to each other of the node, comprising:
5 a plurality of connectors each having a power-supply terminal to
6 which a DC voltage is applied from other nodes through said serial bus and

7 a signal terminal to and from which a signal from other nodes ~~is in~~ input
8 and output;

9 a physical layer which outputs a signal input through a signal
10 terminal of one connector to a signal terminal of the other connector,
11 wherein

12 power-supply terminals of said plurality of connectors are rendered
13 conductive to each other,

14 said bus power-supply device comprises
15 a power-supply circuit which converts said power-supply voltage
16 into a DC voltage for said serial bus and outputs said DC voltage;
17 a converter which converts a DC voltage output from said power-
18 supply circuit into a DC voltage for said physical layer;
19 a voltage detection unit which detects said power-supply voltage
20 being supplied or not being supplied to said power-supply circuit;
21 a first means connected between said power-supply circuit and said
22 converter for supplying a DC voltage outputted from said power-supply
23 circuit to the serial bus, and for preventing application to said power-
24 supply circuit of a DC voltage from the serial bus;
25 a second means connected between said converter and the serial
26 bus for supplying a DC voltage outputted from said power-supply circuit to
27 the serial bus, and for preventing application to said converter and said
28 power-supply circuit of a DC voltage from the serial bus; and
29 a switch which is connected in parallel with said second means and
30 controlled by an output signal outputted from said voltage detection unit;
31 wherein when an output voltage of said power-supply circuit is
32 detected, said switch is turned off, and when an output voltage of said
33 power-supply circuit is not detected, said switch is turned on
34 ~~supplies a DC voltage through said serial bus to said physical layer~~
35 ~~through said power-supply terminal when none of a power-supply voltage~~
36 ~~of said node is supplied, and~~
37 ~~supplies a DC voltage from the power-supply voltage to said~~
38 ~~physical layer by cutting off a path for supplying a DC voltage through~~
39 ~~said serial bus to said physical layer when said power-supply voltage is~~

40 ~~supplied, communication being maintained between said node and~~
41 ~~proceeding and next stages through the serial bus whether a power-supply~~
42 ~~voltage is supplied or not.~~

1 Claim 36. Canceled

1 Claim 37 (Currently Amended). The node as set forth in claim 35 36,
2 comprising:
3 a first path for supplying power from said power-supply voltage to
4 said physical layer; and
5 a second path for supplying power coming through said serial bus
6 to said physical layer, wherein
7 said switch of said bus power-supply device performs connection
8 and cutting of said second path by ON and OFF when power is supplied
9 ~~from said power-supply voltage, said selector cuts off said second path.~~

1 Claim 38. Canceled

1 Claim 39 (New). The bus power-supply device as set forth in claim 20,
2 wherein said voltage detection unit detects said power-supply voltage
3 being supplied or not being supplied by detecting an output voltage of said
4 power-supply circuit.

1 Claim 40 (New). The bus power-supply device as set forth in claim 20,
2 wherein said voltage detection unit detects said power-supply voltage
3 being supplied or not being supplied by detecting an output voltage of said
4 power-supply circuit, and wherein said switch is a semiconductor switch.

1 Claim 41 (New). The bus power-supply device as set forth in claim 20,
2 wherein said voltage detection unit is a comparator which detects said
3 power-supply voltage being supplied or not being supplied by comparing
4 an output voltage of said power-supply circuit with a reference voltage.

1 Claim 42. (New) The node as set forth in claim 35, wherein said voltage
2 detection unit of said bus power-supply device detects said power-supply
3 device detects said power-supply voltage being supplied or not being
4 supplied by detecting an output voltage of said power-supply circuit.

1 Claim 43. (New) Th node as set forth in claim 35, wherein said switch of
2 said bus power-supply device is a semiconductor switch.

1 Claim 44. (New) The node as set forth in claim 35, wherein said voltage
2 detection unit of said bus power-supply device detects said power-supply
3 voltage being supplied or not being supplied by detecting an output voltage
4 of said power-supply circuit, and wherein said switch of said bus power-
5 supply device is a semiconductor switch.

1 Claim 45. (New) The node as set forth in claim 35, wherein said voltage
2 detection unti of said bus power-supply device is a comparator which
3 detects said power-supply voltage being supplied or not being supplied by
4 comparing an output voltage of said power-supply circuit with a reference
5 voltage.